

NOT FOR PUBLICATION

**UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY**

PEAVEY ELEC. CORP.,

Plaintiff,

v.

BEHRINGER INT’L GMBH, et al.,

Defendants.

Civil Action No.: 09-918 (JLL)

OPINION

LINARES, District Judge.

This matter comes before the Court by way of an application for claims construction by Plaintiff Peavey Electronics Corporation and Defendants Behringer International GMBH, Behringer USA Inc., Behringer Holdings (PTE) Ltd., Behringer Spezielle Studiotechnik GMBH, and Red Chip Company Ltd. The parties seek the Court’s interpretation of certain language contained in the claims of United States Patent No. 5,737,428 (the “‘428 Patent”). The ‘428 Patent, entitled “Circuit for Providing Visual Indication of Feedback,” is directed to a circuit for providing a visual indication feedback in an audio circuit so that a fast and accurate adjustment may be made to reduce such feedback.

The Court held a Markman hearing on July 13, 2010. The Court has considered the parties’ written and oral submissions, and sets forth herein its construction of the disputed claim terms.

LEGAL STANDARD

A court's analysis of a patent infringement claim is two-fold. Tate Access Floors, Inc. v. Interface Architectural Resources, Inc., 279 F.3d 1357, 1365 (Fed. Cir. 2002). The court must first define the meaning and scope of the patent claims as a matter of law. Markman v. Westview Instruments, Inc., 52 F.3d 967, 978 (Fed. Cir. 1995) (en banc), aff'd, 517 U.S. 370 (1996). The court then engages in a comparison of the claims as construed to the alleged infringing product (or method). Tate, 279 F.3d at 1365. At this stage, the Court must only engage in the first step.

Claim construction is a matter of law to be determined solely by the court. Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005), cert. denied, 546 U.S. 1170 (2006). Because “[p]atent claims function to delineate the precise scope of a claimed invention and to give notice to the public, including potential competitors, of the patentee’s right to exclude,” a court must “construe claims with an eye toward giving effect to all of their terms.” Haemonetics Corp. v. Baxter Healthcare Corp., 607 F.3d 776, 781 (Fed. Cir. 2010). In construing the terms of a patent, a court should look first to the language of the claim itself. Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). The terms in the claim “are generally given their ordinary and customary meaning.” Id. at 1582.¹ “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” Phillips, 415 F.3d at 1313. A court

¹ The Court recognizes that two situations exist in which it must enter a definition different from the ordinary and customary meaning: (1) where the “patentee has chosen to be his or her own lexicographer by clearly setting forth an explicit definition for a claim term,” Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 990 (Fed. Cir. 1999) (citing In re Paulsen, 30 F.3d 1475, 1480 (Fed. Cir. 1994)), and (2) where “the term or terms chosen by the patentee so deprive the claim of clarity that there is no means by which the scope of the claim may be ascertained from the language used,” id. (citing Eastman Kodak Co. v. Goodyear Tire & Rubber Co., 114 F.3d 1547, 1554 (Fed. Cir. 1997)).

“must look at the ordinary meaning in the context of the written description and the prosecution history.” Medrad, Inc. v. MRI Devices Corp., 401 F.3d 1313, 1319 (Fed. Cir. 2005). The court should turn to “those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.” Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1116 (Fed. Cir. 2004).

To this end, the court should first examine the intrinsic record – the patent itself, including the claims, the specification and the prosecution history. Vitronics, 90 F.3d at 1582 (citing Markman, 52 F.3d at 979). The specification “acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication.” Id. Indeed, the Federal Circuit explains that the specification is “‘usually . . . dispositive . . . [and] the single best guide to the meaning of a disputed term.’” Phillips, 415 F.3d at 1315 (quoting Vitronics, 90 F.3d at 1582). It is “entirely appropriate for a court, when conducting claim construction, to rely heavily on the written description for guidance as to the meaning of the claims.” Id. at 1317. The specification is also an important guide in claims construction as it may contain “an intentional disclaimer, or disavowal, of claim scope by the inventor.” Id. at 1316.

Additionally, the court should consult the patent’s prosecution history as it “provides evidence of how the PTO and the inventor understood the patent.” Id. The prosecution history is the complete record of the proceedings before the Patent and Trademark Office (“PTO”) and includes the prior art cited by the patentee during examination of the patent. Id. at 1317. Moreover, the prosecution history “can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” Id. Indeed, the

Federal Circuit has repeatedly emphasized the need to consult the prosecution history to “exclude any interpretation that was disclaimed during prosecution.” Chimie v. PPG Indus., 402 F.3d 1371, 1384 (Fed. Cir. 2005).

A district court may also examine extrinsic evidence – “all evidence external to the patent and prosecution history.” Markman, 52 F.3d at 980; Phillips, 415 F.3d at 1317-18 (stating that the Federal Circuit “ha[s] authorized district courts to rely on extrinsic evidence”). Such evidence consists of testimony by the inventor or experts, dictionaries, and/or treatises. Markman, 52 F.3d at 980. In particular, a court may find reference to technical dictionaries useful “in determining the meaning of particular terminology.” See Phillips, 415 F.3d at 1318. However, extrinsic evidence is generally thought less reliable than the patent and prosecution history, id. at 1318-19; in essence, it is “less significant than the intrinsic record in determining the legally operative meaning of claim language,” C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 862 (Fed. Cir. 2004) (quotation omitted). With this framework in mind, the Court now turns to the disputed claim language.

DISCUSSION

The parties seek construction of various terms in Claims 1, 2, 3, 4, 6, 7, 9, 10, 11, 12, and 13 of the ‘428 Patent.

1. Disputed Terms

A. “Peak Detector Circuit”

Claim 1 calls for:

A circuit for detecting the highest relative signal of a plurality of input signals comprising: a plurality of peak detector circuits, one each of said peak detector circuits responsively coupled to a

corresponding one of said input signals for producing a corresponding switch control signal proportional to the peak value of said input signal; a plurality of solid state switches including a common connection with each other, one each of said switches responsively coupled to a corresponding one of the peak detector circuits for receiving the switch control signal, the common connection of said switches being operative so that only one of said switches is active at a time in response to the highest switch control signal; and visual display means including one each responsively coupled to the corresponding switch and being illuminated upon actuation of said corresponding switch so that a visual indication of only the highest input signal is displayed.

Claim 10 contains the following language:

a plurality of peak detector circuits, each including a sensing diode and a capacitor, one each of said peak detector circuits responsively coupled to a corresponding one of said input signals for producing a corresponding control signal proportional to the peak value of said input signal;

The parties ask the Court to construe the term “peak detector circuit” which appears in claims 1 and 10. Peavey proposes that the term be construed as “a circuit, namely, the complete path of an electric current, which is harnessed to detect a highest amplitude input signal.” Peavey also proposes that the Court construe the term “input signals” as “electrical voltages derived from audio.” Behringer, on the other hand, proposes that the term “peak detector circuit” be construed as follows:

a circuit having an input node and an output node. The signal generated by a peak detector circuit at its output node – called a “switch control signal” in this claim – approximates the maximum amplitude of the signal at its input node over some appreciable finite period of time up to the present time. Each switch control signal must change responsively as the peak value of its corresponding input signal changes. A peak detector must include some storage mechanism to store that maximum amplitude (or an approximation thereof) for at least that finite period of time. Each peak detector circuit in this claim must include its own distinct storage mechanism.

In addition, Behringer proposes that “circuit” be construed as “electrically connected electronic hardware; computer software or firmware is not a circuit.”

The definitions differ in two major respects: (1) Behringer’s definition includes the requirement that a peak detector must include its own storage mechanism, and (2) Behringer’s definition includes the requirement that a peak detector must store the “maximum amplitude” for a finite period of time. In support of its position, Behringer relies heavily on a declaration submitted by its expert, Dr. Robert T. Short. According to Dr. Short, a “typical peak detector” functions by storing in a storage mechanism (such as a capacitor) the maximum amplitude (or peak) of its corresponding input signal for a finite period of time, after which the input signal decreases from the peak. (Def. Br., Short Decl., ¶¶ 7-9).² Such evidence constitutes extrinsic evidence. “[W]hile extrinsic evidence ‘can shed useful light on the relevant art,’ . . . it is ‘less significant than the intrinsic record in determining ‘the legally operative meaning of claim language.’ ” Phillips, 415 F.3d at 1317.

The ‘428 Patent is “directed to a circuit for providing a visual indication feedback in an audio circuit so that a fast and accurate adjustment may be made to reduce such feedback.” ‘428 Patent, Col. 1:6-11. As quoted above, Claim 1 calls for “a circuit for detecting the highest relative signal of a plurality of signals” comprising: (a) a plurality of peak detector circuits, and (b) a plurality of solid state switches. ‘428 Patent, Col. 1:66-67. Claim 1 makes no reference to a “storage mechanism” or storage of “maximum amplitude” for a finite period of time. Although Claim 3 recites to the use of a capacitor, Claim 3 is a dependent claim inasmuch as it refers to “the circuit of

² See Markman Tr. 96:5-15; 99:25-1.

claim 1.” ‘428 Patent, Col. 4:24-26. Because Claim 3 recites to the use of a capacitor, which is not recited in Claim 1, the doctrine of claim differentiation directs that these claims are presumptively different in scope. See Wenger Mfg., Inc. v. Coating Machinery Sys., Inc., 239 F.3d 1225, 1233 (Fed. Cir. 2001) (“Under the doctrine of claim differentiation, each claim in a patent is presumptively different in scope.”); Dow Chem. Co. v. United States, 226 F.3d 1334, 1341-42 (Fed. Cir. 2000) (applying the doctrine of claim differentiation and concluding that an independent claim should be given broader scope than a dependent claim to avoid rendering the dependent claim redundant). The dependency of Claim 3 on Claim 1 strengthens this presumption. See Wenger, 239 F.3d at 1234.

Claim 10, which also recites to use of a capacitor, is an independent claim (inasmuch as it does not refer back to any other claims). Pursuant to the doctrine of claim differentiation, “when a patent claim ‘does not contain a certain limitation and another claim does, that limitation cannot be read into the former claim in determining either validity or infringement.’ ” Amgen Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1326 (Fed. Cir. 2003). Thus, the Court begins its analysis of the relationship between both claims by presuming that the “peak detector circuit” of Claim 1 does not necessarily include a “storage mechanism” or “capacitor” (as set forth in Claim 10). See, e.g., Kraft Foods, Inc. v. Int’l Trading Co., 203 F.3d 1362, 1366 (Fed. Cir. 2000). This presumption can, however, be overcome. See id. at 1368 (agreeing with district court that the written description and prosecution history overcome any presumption arising from the doctrine of claim differentiation and approving the district court’s construction). For instance, in Kraft Foods, the district court began its claim construction by presuming that the “protecting back panel” of claim 2 did not need to be “relatively stiff” where claim 1 recited to a “back panel” comprised of “a flat relatively stiff planar sheet” but claim 2 contained no such requirement that its “protecting back panel” be relatively stiff.

203 F.3d at 1366. The district court went on to find the written description and prosecution history as overcoming this presumption. In doing so, the district court focused on the unequivocal declaration in the written description that “[a]ny of the back panels would be constructed of a relatively stiff material such as paperboard or a relatively thick plastic material such as high density polyethylene.” Id. at 1367. The district court further relied upon portions of the prosecution history wherein the patent examiner acknowledged that the panel was “stiff.” Id. The Federal Circuit agreed with the district court and noted: (a) “claim differentiation only creates a presumption that each claim in a patent has a different scope; it is ‘not a hard and fast rule of construction,’ ” (b) “that the claims are presumed to differ in scope does not mean that every limitation must be distinguished from its counterpart in another claim, but only that at least one limitation must differ,” and (c) plaintiff had failed to provide any support for its broad definition or otherwise demonstrate that its proposed construction was the normal and ordinary meaning. Id.

Here, in support of its position, Behringer relies almost entirely on its expert, Dr. Short, who stated the following:

It is my opinion that the phrase “peak detector circuit” and similar phrases like “peak detector means” and “detector means” in [the ‘428 Patent] would have meant the following to one of ordinary skill in the pertinent art at the time of the invention in August 1995: A peak detector circuit is an electronic circuit that receives a signal as an input and produces an output that is proportional to the maximum value of their input signal.

(Def. Br., Ex. A at ¶ 5). Although Dr. Short goes on to state that “a very typical peak detector circuit” includes a diode, a capacitor and a resistor, such elements are notably absent from Dr. Short’s proposed definition of “peak detector circuit.” See Markman Tr. (July 13, 2010) at 96:5-15.

Behringer has given the Court no other basis on which to find that the presumption that Claim 1 and Claim 10 are different in scope is overcome. Therefore, the Court declines to read into Claim 1 the limitations set forth in Claim 10. The Court will, instead, adopt Peavey's definition of "peak detector circuit" – "a circuit, namely, the complete path of an electric current, which is harnessed to detect a highest amplitude input signal."³ However, the Court finds it appropriate to include language contained in Dr. Short's proposed definition, namely that the circuit also "produces an output that is proportional to the maximum value of the input signal." This is consistent with a plain reading of Claim 1, which calls for a circuit that not only detects the highest relative signal of a plurality of input signals but also produces "a corresponding switch control signal proportional to the peak value of said input signal." '428 Patent, Col. 4:3-5. Thus, the Court defines "peak detector circuit" as follows: "a circuit, namely, the complete path of an electric current, which is harnessed to detect a highest amplitude input signal and produces an output that is proportional to the maximum value of the input signal."

B. "Only the Highest"

Claims 1, 10 and 12 of the '428 Patent contain the following similar terms (referred to collectively as the "only the highest" terms):

- "Only one of said switches is active at a time . . ." (Claim 1)
- "Only one of said switching devices is active at a time . . ." (Claim 10)
- "Highest switch control signal . . ." (Claim 1)
- "In response to the highest control signal . . ." (Claim 10)

³ The Court also adopts Peavey's definition of "input signals," namely, "electrical voltages derived from audio," as consistent with the plain language of the patent. See '428 Patent, Col. 1:6-11.

- “Highest control signal” (Claim 10)
- “The highest one of the peak signals” (Claim 12)

Claim 1 is quoted above. Claim 10 contains the following language:

A circuit for detecting the highest relative signal of a plurality of input signals comprising . . . a plurality of solid state three terminal switching devices, including an input terminal, an output terminal and a common output terminal one each of said switching devices having its corresponding input terminal responsively coupled to a corresponding one of the peak detector circuits for receiving the control signal, the common terminals of said switching devices being coupled together so that only one of said switching devices is active at a time in response to the highest control signal;

Claim 12 contains the following language:

a plurality of commonly connected switch means, one each responsive to the peak detector means for each filter, one of said plurality of switch means for producing an output corresponding to the highest one of the peak signals.

Peavey proposes that “only one of said switches is active at a time” (Claim 1) and “only one of said switching devices is active at a time” (Claim 10) should be construed to mean that “only one of the solid state switches allows current to flow, corresponding to the switch that is presented the highest switch control signal.” Similarly, Peavey proposes that “highest switch control signal” (Claim 1) should be construed to mean “the signal with the highest amplitude derived from audio,” that “the highest one of the peak signals” (Claim 12) should be construed to mean “the highest amplitude peak signal,” and that “in response to the highest control signal” (Claim 10) should be construed to mean “in response to the signal with the highest amplitude derived from audio.”

Behringer, on the other hand, proposes that the foregoing terms be construed as requiring that: (1) exclusively one and only one light alone – the one receiving the single highest switch

control signal – is active at any given time, and (2) exclusively one and only one switch alone – the one receiving the single input signal with the highest peak – is activated at any given time. In addition, Behringer proposes the following two exclusions: (1) any circuit in which it is possible to activate (that is, turn on) a “solid state switch” whose switch control signal does not have the maximum amplitude compared to all the other switch control signals, and (2) any circuit in which it is possible to activate (that is, turn on) more than one “solid state switch” at a time. In addition, Behringer proposes that, as to Claim 1, this limitation requires that each “solid state switch” is distinct from its peak detector circuit, and as to Claims 1 and 12, that there are multiple (two or more) switches. As a preliminary matter, the Court agrees that a plain reading of the patent confirms that this limitation requires multiple (two or more) switches. See ‘428 Patent, Col. 4:6-12 (referring to the term switches, in the plural).⁴ See generally York Prods., Inc. v. Central Tractor Farm & Family Ctr., 99 F.3d 1568, 1575 (Fed. Cir. 1996) (defining “plurality” as requiring at least two).

Turning now to the phrases at issue, the real crux of the parties’ dispute over such language centers around Behringer’s contention that Peavey disclaimed all apparatuses which do not merely show a single illuminated light emitting diode (“LED”) corresponding to the loudest input signal amongst a plurality of input signals during the prosecution of the ‘428 Patent. Peavey, on the other hand, claims that to the extent it disclaimed anything during the prosecution of the ‘428 Patent, it

⁴ “[A] plurality of solid state switches including a common connection with each other, one each of said switches responsively coupled to a corresponding one of the peak detector circuits for receiving the switch control signal, the common connection of said switches being operative so that only one of said switches is active at a time in response to the highest switch control signal.” ‘428 Patent, Col. 4:6-12.

only disclaimed the exact circuit disclosed in England,⁵ the prior art reference cited to by the Examiner. In particular, Peavey points out that during the prosecution of the ‘428 Patent, the Examiner issued two office actions that rejected the proposed claims under 35 U.S.C. § 103(a) as being unpatentable over England because, like the invention disclosed in the ‘428 Patent, England disclosed a “circuit for detecting the highest relative signal of a plurality of input signals.” (Pl. Br., Ex B at 2). In response to said office actions, Peavey submitted an amended application on December 5, 1996 which sought to clarify the differences between its invention and the one described in England. (Pl. Br., Ex. C). Peavey cites to portions of the following excerpt of its amended application:

Indeed, the portion of England cited by the Examiner at column B, states that the display will be constantly changing, thereby illustrating the changing levels of the audio signals in each one of the frequency bands. Light emitting diodes in each band may be illuminated at the same time. At any particular time, one or another band may be at the highest level and the light emitting diode that indicates the highest level, namely peak detector or overload indicators. However, these are different from the present invention in that they operate at a fixed threshold and are not exclusive. Therefore more than one can light at a time.

(Pl. Br., Ex. C at 7). Such statements, according to Peavey, merely “clarified that England was incapable of only indicating the highest signal amongst a plurality of signals. In contrast, the Peavey invention described in the ‘428 Patent was capable of indicating only the highest signal amongst a plurality of signals.” (Pl. Br. at 3-4) (emphasis in original). Although Peavey’s distinction is well

⁵ During the prosecution of the ‘428 Patent, the Examiner issued two office actions that, among other things, rejected the proposed claims under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,359,601, entitled Audio Control System, to England (hereinafter referred to as “England”). See Docket Entry No. 79-3.

taken, based on the reasons that follow, the Court finds that the intrinsic record does not support its theory.

First, the specification of the '428 Patent criticizes prior art graphic equalizers which do not merely show a single illuminated LED corresponding to the loudest input signal. In this regard, the specification states:

If a particular band of frequencies is more intense than all other bands, it is possible to produce undesirable feedback. Typically, the loudest signal causes the feedback or squeal that occurs when the microphone picks up the output from the speaker and amplifies it until it runs away. It is difficult, however, to determine which channel in the equalizer has the loudest or highest signal. Meters are dynamic and are hard to track. Likewise, it is difficult to readily discern which one of a plurality of variable intensity lights is the brightest and hence indicative of the highest signal.

'428 Patent, Col. 1:34-44. The specification goes on to describe two embodiments of the invention.

In the first embodiment:

The common terminals are coupled together so that only one of the switches is active at a time in response to the highest control signal. A visual display employs a plurality of light emitting diodes (LED), one each responsively coupled to the output of a corresponding switch. The LED connected to the active switch is illuminated so that a visual indication of the highest input signal is displayed.

'428 Patent, Col. 1:64-2:4 ("Summary of the Invention"). The second embodiment is described as follows:

A visual display means coupled to each switch provides a visual indication upon actuation of the corresponding switch. The switches are commonly coupled so that only one switch is activated in accordance with the highest relative signal from each band pass filter.

'428 Patent, Col. 2:15-19 ("Summary of the Invention"). The specification further provides that:

When a signal is present, the driver amplifier 48A-48N with the largest potential on its base captures all the current causing the associated light emitting diode 50A-50N to become illuminated. At the same time, all of the other driver amplifiers are consequently not energized. Thus, only one of the light emitting diodes 50A-50N corresponding to the filter 42A-42N with the highest signal is illuminated.

‘428 Patent, Col. 3:7-13 (“Description of the Invention”).

Although Peavey describes its invention as being capable of indicating only the highest signal amongst a plurality of signals, the ‘428 Patent, as described in its specification, is not merely capable of providing such an indication; rather, the ‘428 Patent states, unequivocally, that the invention will provide such indication and only such indication. See ‘428 Patent, Col. 1:64-2:4 (“The LED connected to the active switch is illuminated so that a visual indication of the highest input signal is displayed.”) (emphasis added); 3:7-13 (“Thus, only one of the light emitting diodes 50A-50N corresponding to the filter 42A-42N with the highest signal is illuminated.”) (emphasis added). Generally, as Peavey correctly notes, “advantages described in the body of the specification, if not included in the claims, are not *per se* limitations to the claimed invention.” Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc., 334 F.3d 1294, 1301 (Fed. Cir. 2003) (citation omitted). Thus, “absent a clear disclaimer of particular subject matter, the fact that the inventor anticipated that the invention may be used in a particular manner does not limit the scope to that narrow context.” Id. If there was any question as to whether Peavey intended such statements to serve as a limitation on the scope of its invention, or whether statements from the description of the preferred embodiment are simply that – descriptions of one preferred embodiment – the Court finds that explanations made by Peavey before the PTO during the prosecution of the ‘428 Patent provide sufficient clarity on the subject.

As previously discussed, during the prosecution of the ‘428 Patent, the Examiner initially rejected all claims as unpatentable over certain prior art, including England. In response, Peavey filed an amended application on December 5, 1996, which included the following statements:

[England and other prior art circuits] are different from the present invention in that they operate at a fixed threshold and are not exclusive. Therefore more than one can light at a time. Thus, they do not clearly, simply, unambiguously and economically provide the desired information, namely which band is the loudest.

(‘428 Patent Prosecution History, Pl. Br., Ex. C at 7). That amendment went on to clarify, in no uncertain terms, that “[t]he present invention is exclusive, namely only one display at a time is illuminated” Id. at 8. On June 3, 1997, Peavey submitted a second amended application which contained the following relevant explanation:

With respect to the Examiner’s assertion that England’s simultaneous display are displayed one at a time ignores the functionality of the present invention. England will display only one band at a time if only one signal is present. It will not suppress other bands to display the loudest one. England’s display shows all the signals that are present including feedback signals. The human observer looking at the various visual outputs then determines which signal is the loudest by scanning across all the meters and looking for the highest value. This is much more difficult and expensive than the approach of the present invention. The present invention computes which channel has the highest signal and provides a visual indication of only that channel.

(‘428 Patent Prosecution History, Pl. Br., Ex. E at 4). Peavey went on to explain, again, in no uncertain terms: “[i]n the present invention, only one LED is illuminated at a time. This illuminated LED represents the loudest signal.” (Id. at 3). The foregoing statements made before the PTO confirm that the invention, as contemplated by the patent applicant, is not only capable of, but in fact, will provide a visual indication of the channel with the highest signal – “only that channel.” Id.

(emphasis added). This is precisely what distinguished Peavey's invention from England. See id. at 4 (explaining that "England will display only one band at a time if only one signal is present. It will not suppress other bands to display the loudest one.").

Notwithstanding the foregoing, Peavey maintains that it did not clearly and unambiguously disclaim all apparatuses which do not merely show a single illuminated LED corresponding to the loudest input signal amongst a plurality of input signals based on two reasons: (1) the statements discussed above merely described that the '428 Patent was capable of indicating only the highest signal amongst a plurality of signals, not that it was required to do so, and (2) other statements made in the specification and the prosecution history indicate that although the '428 Patent "generally only illuminated one display at a time, at least one embodiment could illuminate multiple displays."⁶ (Pl. Resp. Br. at 6). Having already considered and rejected the first reason offered by Peavey, the Court now considers the second.

Peavey relies on two statements in particular in support of this contention – the first is contained in the December 5, 1996 amendment submitted to the PTO and the second is contained in the patent specification. The relevant portion of the specification provides:

Thus, only one of the light emitting diodes 50A-50N corresponding to the filter 42A-42N with the highest signal is illuminated. On occasion, in those frequency regions between bands, it may happen that two driver amplifiers become illuminated. This can happen when the signal is more or less evenly split between driver amplifiers of adjacent bands. In such a case, the operator may selectively reduce or cut the corresponding control 46A-46N for the two bands.

('428 Patent, Col. 3:11-19). Similarly, the December 5, 1996 amendment states:

The present invention is exclusive, namely only one display at a time

⁶ See Markman Tr. (July 13, 2010) 46:4-20.

is illuminated, except in the rare situation where the signal in two bands are so close so as to overcome the tolerance of the components. Nevertheless, even in such circumstance, it is easy to ascertain which circuit is higher than it needs to be and the appropriate adjustment can be readily accomplished by the user.

(‘428 Patent Prosecution, Pl. Br., Ex. C at 8). The “occasion[al]” circumstance in which the signal in two bands are so close such that two signals are illuminated was described in Peavey’s own words as “rare.” See id. To the contrary, a plain reading of the ‘428 Patent and its prosecution history emphasizes – repeatedly – that the invention’s “only” active circuit is that which has the highest or loudest signal. The prosecution history in response to the England reference is specific: “[t]he present invention computes which channel has the highest signal and provides a visual indication of only that channel.” (Pl. Br., Ex. E at 4). The same prosecution history also demonstrates that Peavey’s response was not limited to the England reference. See id. (“With respect to the Examiner’s rejection of the claims over Otsuki, the amended claims allow for a display of only the highest signal.”).

In light of the foregoing, the Court agrees with Behringer that statements made by Peavey in the specification of the ‘428 Patent and its prosecution history evidenced a clear and unambiguous intent to limit the scope of the ‘428 Patent to circuits in which one light (or switch) – the one receiving the highest switch control signal – is illuminated (or activated) at any given time. Such statements were global and thus apply to all claims containing the “only the highest” terms. See, e.g., Andersen Corp. v. Fiber Composites, LLC, 474 F.3d 1361, 1369 (Fed. Cir. 2007) (“The statements about pelletizing were global – they applied to all the claims of the patent – and thus they served to limit all the claims.”). The Court, therefore, accepts Behringer’s construction of the “only the highest” terms.

As to the two exclusions proposed by Behringer, the Court agrees that both exclusions are appropriate in light of the prosecution history. “[F]or prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable.” Omega Engineering, Inc. v. Raytek Corp., 334 F.3d 1314, 1325-26 (Fed. Cir. 2003).

As discussed above, during the prosecution of the ‘428 Patent, in order to overcome an obviousness rejection, Peavey clearly and deliberately: (1) criticized prior art circuits which turned on multiple lights at any given point in time,⁷ and (2) emphasized that the ‘428 Patent would not turn on a light for any channel other than the one corresponding to the highest input signal at any given point in time.⁸ Having done so, the scope of Peavey’s claims cannot cover circuits in which it is possible to activate: (a) more than one switch at a time, or (b) a switch which does not correspond to the highest input signal at any given point in time. See, e.g., N. Am. Container, Inc. v. Plastipak Packaging, Inc., 415 F.3d 1335, 1345 (Fed. Cir. 2005) (“To overcome an obviousness rejection, the applicant distinguished his invention from the Dechenne patent on the basis of the latter disclosing inner walls that are ‘slightly concave.’ The inescapable consequence of such an argument is that the scope of applicant's claims cannot cover inner walls that are ‘slightly concave.’”).

Finally, Behringer proposes that, as to Claim 1, this limitation requires that each “solid state switch” is distinct from its peak detector circuit. Peavey disagrees and relies on language from

⁷ See ‘428 Patent Prosecution History, Pl. Br., Ex. C at 7 (distinguishing prior art circuits and noting that “these are different from the present invention in that they operate at a fixed threshold and are not exclusive. Therefore more than one can light at a time. Thus, they do not clearly, simply, unambiguously and economically provide the desired information, namely which band is the loudest.”).

⁸ See ‘428 Patent Prosecution History, Pl. Br., Ex. E at 3 (“In the present invention, only one LED is illuminated at a time. This illuminated LED represents the loudest signal.”).

several dependent claims which, according to Peavey, shows that “[c]learly the inventor intended a relationship between these terms that is not necessarily ‘distinct.’ Claim 1 provides for a circuit for detecting the highest relative signal of a plurality of input signals comprising: (1) a plurality of peak detector circuits, (2) a plurality of solid state switches, and (3) a visual display means for providing a visual indication of only the highest input signal. “Where a claim lists elements separately, ‘the clear implication of the claim language’ is that those elements are ‘distinct component[s]’ of the patented invention.” Becton, Dickinson and Co. v. Tyco Healthcare Group, LP, 616 F.3d 1249, 1254 (Fed. Cir. 2010). Moreover, with respect to the plurality of solid state switches, Claim 1 makes clear that “one each of said switches [is] responsively coupled to a corresponding one of the peak detector circuits for receiving the switch control signal” ‘428 Patent, Col. 4:6-11. In light of the foregoing, the Court agrees with Behringer that a plain reading of the claim language reveals that each solid state switch is distinct from its peak detector circuit. To find otherwise would mean that each solid state switch is coupled (or responsive) to itself. This cannot be correct. See Becton, 616 F.3d at 1255 (“A claim construction that renders asserted claims facially nonsensical ‘cannot be correct.’ ”).

Accordingly, the Court adopts Behringer’s proposed construction of the “only the highest” terms, including its proposed exclusions, and finds that this limitation further requires that (a) each solid state switch is distinct from its peak detector circuit, and (2) there are multiple (2 or more) switches.

C. “Visual Display Means”

The parties ask the Court to construe the term “visual display means” which appears in

Claims 1, 2, 10, 11, 12 and 13 of the ‘428 Patent. According to Behringer, in each claim in which the term appears, the claim also recites a function – providing a visual indication of only the highest signal; therefore, because the claims recite the term “means” in conjunction with a function, the “visual display means” portions of those claims are presumed to be means-plus-function limitations. Def. Br. at 20 (citing Biomedino, LLC v. Waters Techs. Corp., 490 F.3d 946, 950 (Fed. Cir. 2007)). Peavey disputes this contention and, instead, maintains that the claims at issue recite adequate structures to overcome the presumption of the application of 35 U.S.C. § 112 ¶ 6.

35 U.S.C. § 112 ¶ 6 provides that:

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

The Federal Circuit has explained that “[u]se of the word ‘means’ in claim language creates a presumption that § 112 ¶ 6 applies.” TriMed, Inc. v. Stryker Corp., 514 F.3d 1256, 1259 (Fed. Cir. 2008). If, however, “the claim recites sufficient structure for performing the described functions in their entirety, the presumption of § 112 ¶ 6 is overcome – the limitation is not a means-plus-function limitation.” Id. In those cases where the Federal Circuit has found sufficient structure in the claim, “the claim language specifies a specific physical structure that performs the function.” Altiris, Inc. v. Symantec Corp., 318 F.3d 1363, 1376 (Fed. Cir. 2003).

The limitation at issue here recites the word “means” which gives rise to the presumption that § 112, ¶ 6 applies. See, e.g., TriMed, 514 F.3d at 1259. The claimed function of the “visual display means” is to provide “a visual indication of only the highest input signal.” ‘428 Patent, Col. 4:14-18. No corresponding structure is recited in Claims 1 or 2. Claim 10, however, recites “a plurality of

light emitting diodes” (“LEDs”) which are “illuminated upon actuation of only said corresponding switching device so that a visual indication of the highest peak input signal is displayed.” ‘428 Patent, Col. 5:1-7. This structure – a plurality of illuminating LEDs – is sufficient structure for performing the described function – providing a visual indication of only the highest input signal – and thus removes this term from the purview of § 112, ¶ 6. The Court, therefore, declines to restrict “visual display means” in the claims at issue to the structural embodiments set forth in the specification. See, e.g., Al-Site Corp. v. VSI Intern., Inc., 174 F.3d 1308, 1318 (Fed. Cir. 1999) (“According to claim 1 of the ’726 patent, the eyeglass hanger member has ‘an attaching portion attachable to a portion of said frame of said pair of eyeglasses to enable the temples of the frame [to be opened and closed].’ This structure also precludes treatment as a means-plus-function claim element.”).

As to the claim language itself, based upon a plain reading of the language of Claims 1, 2, 10, 11, 12 and 13, the Court adopts Peavey’s proposed construction of the term “visual display means” and defines same as “any device including a light or LED, capable of being visually perceived.” This language is clearly supported by the specification and the proposed construction of same is largely uncontested. See ‘428 Patent, Col. 3:35-38 (“The present invention also allows the user to sense which band is the loudest by visual observation of the corresponding light emitting diode and thus reduce the frequency response of such band.”). The Court agrees with Behringer, however, that this limitation requires multiple (two or more) lights or LEDs. See ‘428 Patent, Col. 5:1-7 (referring to LEDs in the plural); see generally York Prods., 99 F.3d at 1575 (defining “plurality” as requiring at least two). Lastly, for the reasons discussed above (in connection with the “only the highest” terms), the Court also agrees with Behringer that the phrase “so that a visual

indication of only the highest input signal is displayed” means that exclusively one and only one light alone – the one receiving the single highest switch control signal – is illuminated at any given time. See supra Part 1.B. To the extent the parties require further construction of the term “visual indication,” the Court adopts, in part, Peavey’s proposed construction and defines such as “anything that is perceivable to visual senses.” See ‘428 Patent, Col. 1:45-50 (“It is therefore desirable to provide a system for visually sensing the highest amplitude signal in a multi-channel circuit. Such a system would readily allow the operator to see and quickly adjust the volume of the channel.”); 3:35-38.

D. “Darlington Circuit”

The parties ask the Court to construe the term “Darlington circuit” which appears in Claim 4. Claim 4 calls for “[t]he circuit of claim 1 wherein the switch comprises a Darlington circuit having a base input, a collector output and a common emitter circuit.” ‘428 Patent, Col. 4:27-29. Peavey proposes the following definition of “Darlington circuit”: “a compound consisting of two bipolar transistors (either integrated or separated devices) connected in such a way that the current amplified by the first transistor is amplified further by the second one, or is equivalent to a high gain transistor.” Behringer generally agrees with Peavey’s proposed construction but (a) proposes to strike the last part saying “or is equivalent to a high gain transistor,” and (b) argues that the phrase “the switch” is vague and ambiguous thereby rendering Claim 4 invalid as indefinite pursuant to 35 U.S.C. § 112, ¶ 2.

As a preliminary matter, the Court notes that Behringer seeks to have not only Claim 4, but also several other claims, declared invalid because they contain terms which, according to Behringer,

are indefinite pursuant to 35 U.S.C. § 112, ¶ 2 (“The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.”). Peavey, on the other hand, maintains that such arguments are more appropriately raised and addressed in a dispositive motion on the issue of invalidity. Having carefully considered both positions, the Court agrees with Peavey that arguments concerning indefiniteness are better dealt with in a separate context. Therefore, the Court declines to consider such arguments at this time and will instead hear such arguments, to the extent they are reasserted, in the context of a dispositive motion on the issue of invalidity. See, e.g., Am. Med. Sys., Inc. v. Laser Peripherals, LLC, 665 F. Supp.2d 1025, 1030 (D. Minn. 2009) (“The Court declines to determine at this time if the asserted claims are invalid as indefinite, and will consider arguments relating to validity if and when they are raised during a subsequent proceeding.”); Sepracor Inc. v. Dey, L.P., 590 F. Supp 2d 649, 656 n.2 (D. Del. 2008) (“[I]n the Court’s view, the facts of this case present circumstances where indefiniteness and written description are best dealt with in a context other than the Court’s initial consideration of claim construction.”)

As to the phrase “or is equivalent to a high gain transistor,” Peavey maintains that this statement is supported by the common understanding of this term by those skilled in the art. More specifically, Peavey maintains “it is well known in the art of electrical engineering that the current gain of a Darlington circuit is approximately the product of the gains of the two transistors that make up a Darlington circuit, hence a Darlington circuit behaves like a single transistor with a high current gain.” (Pl. Br. at 20). In support of this position, Peavey attaches a document printed in 1991 entitled “Analogue Electronic Circuits and Systems.” (Pl. Br., Ex. K). Peavey admits that “extrinsic evidence is unnecessary for construction of this term,” but nevertheless urges the Court to consider

such evidence. (Pl. Br. at 20 n. 15). The Court declines to consider such extrinsic evidence inasmuch as the proposed phrase attempts to encompass an alleged equivalent of a Darlington circuit within the literal scope of Claim 4. This is improper. See, e.g., Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 234 F.3d 558, 589 (Fed. Cir. 2000) (“A claim element that recites the corresponding structure does not literally encompass equivalents of that structure.”), vacated on other grounds, 535 U.S. 722 (2002). Accordingly, the Court adopts, in part, Peavey’s proposed construction of the term “Darlington circuit” and defines such as “a compound consisting of two bipolar transistors (either integrated or separated devices) connected in such a way that the current amplified by the first transistor is amplified further by the second one.”

E. “Gain Control Means”

This term appears in Claims 9, 11, 12 and 13. Peavey proposes the following construction: “any electronic component or circuit for increasing or decreasing the output level of an amplifier.” Behringer opposes this proposed construction on the basis that the foregoing claims are invalid as indefinite for two reasons: (1) the claim language is ambiguous as to whether there is just one “gain control means” or multiple “gain control means” (one for each band pass filter), and (2) the “gain control means” limitation is a means-plus-function limitation but the specification fails to describe any structure for performing the recited function. As previously discussed, the Court declines to rule on invalidity arguments in the context of its preliminary claim construction. The Court will, however, take the opportunity to point out several issues gleaned from the parties submissions.

First, as Behringer correctly notes, use of the term “means” in the claim language creates a presumption that § 112 ¶ 6 applies. See, e.g., TriMed, 514 F.3d at 1259. This presumption is

overcome if the claim recites sufficient structure for performing the described function. Id. Behringer maintains that the patent specification fails to describe any structure for performing the recited function (thereby rendering the corresponding claims invalid). Although Peavey disputes this contention, it is not entirely clear to the Court whether Peavey's position is that this term is not within the purview of § 112, ¶ 6 because the claim itself provides sufficient structure for performing the described function or whether the means-plus-function format should be adopted and the term construed to cover the "corresponding structure, material or acts described in the specification." 35 U.S.C. §112, ¶ 6. Secondly, Behringer claims that, to the extent the claim language should be construed, "gain control means" "must be functionally coupled to each band pass filter and the amplifier means." However, Behringer fails to adequately substantiate this position by specific reference to the intrinsic record or to any legal authority.

F. "Detector Means"

This term appears in Claims 11, 12 and 13. Peavey proposes the following construction: "any electronic component or circuit for detecting a peak electrical signal." Behringer maintains that the meaning of this limitation is governed by 35 U.S.C. § 112, ¶ 6 (by virtue of inclusion of the word "means") and should, therefore, be restricted to the structural embodiments set forth in the specification. Alternatively, should the Court not construe this limitation pursuant to §112, ¶ 6, Behringer urges the Court to construe it synonymously with the "peak detector circuits" limitation in Claims 1 and 10.

The limitation at issue here recites the word "means" which gives rise to the presumption that § 112, ¶ 6 applies. See, e.g., TriMed, 514 F.3d at 1259. The claimed function of the "detector

means” is to produce “a peak signal for each center frequency.” ‘428 Patent, Col. 5:20-21; 6:28-29. No corresponding structure is recited in Claims 11, 12 or 13; therefore, § 112, ¶ 6 directs that such claims “shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” According to Behringer, the corresponding structure disclosed in the specification as performing the function of producing a peak signal for each center frequency is the peak detector circuit 60A-60N. Although the illustrated embodiment describes the corresponding structure as a peak detector circuit 60A-60N (‘428 Patent, Col. 2:52-57), the specification also describes the structure (which produces a peak signal for each center frequency) as: (a) “a plurality of peak detector circuits” (‘428 Patent, Col. 1:57-60), and/or (b) “a sensor” (‘428 Patent, Col. 2:12-14).

The Federal Circuit has explained that:

The duty of a patentee to clearly link or associate structure with the claimed function is the quid pro quo for allowing the patentee to express the claim in terms of function under section 112, paragraph 6. Section 112, paragraph 6 was intended to allow the use of means expressions in patent claims without requiring the patentee to recite in the claims all possible structures that could be used as means in the claimed apparatus. However, “[t]he price that must be paid for use of that convenience is limitation of the claim to the means specified in the written description and equivalents thereof.” If the specification is not clear as to the structure that the patentee intends to correspond to the claimed function, then the patentee has not paid that price but is rather attempting to claim in functional terms unbounded by any reference to structure in the specification. Such is impermissible under the statute.

Med. Instrumentation and Diagnostics Corp. v. Elekta AB, 344 F.3d 1205, 1211 (Fed. Cir. 2003) (citations omitted); see also Budde v. Harley-Davidson, Inc., 250 F.3d 1369, 1377 (Fed. Cir. 2001) (“As a quid pro quo for the convenience of employing § 112, paragraph 6, Budde has a duty to clearly link or associate structure to the claimed function.”). It is not entirely clear to the Court

which structure Peavey has linked to the claimed function (of producing a peak signal for each center frequency). Peavey offers little guidance. In fact, Peavey's briefing does not address whether this term even falls within the purview of § 112, ¶ 6, much less attempt to link the claimed function with any particular structure.

“[F]ailure to disclose adequate structure corresponding to the recited function . . . results in the claim being of indefinite scope, and thus invalid, under 35 U.S.C. § 112, paragraph 2.” Budde, 250 F.3d at 1376. Thus, in order for this Court to hold that Claims 11, 12 and 13 contain a means-plus-function limitation which lacks disclosure of a corresponding structure in the patent's specification that performs the claimed function, “necessarily means that the court finds the claim in question indefinite, and thus invalid.” Id. “Because the claims of a patent are afforded a statutory presumption of validity, overcoming the presumption of validity requires that any facts supporting a holding of invalidity must be proved by clear and convincing evidence.” Id. The Court is not in a position to engage in such an analysis based on the current record. Accordingly, the Court declines to rule on the construction of the term “detector means” as it appears in Claims 11, 12 and 13 at this juncture.

G. “Switch Means”

The parties jointly propose the following construction for the term “switch means” which appears in Claims 11-13: “any electronic component or circuit that can allow current to flow or not flow through the switch.” Behringer maintains that this limitation requires the additional requirement that each “switch means” is distinct from its corresponding “detector means.” Claim 11 provides for “A feedback sensor for a graphic equalizer circuit comprising . . . switch means responsive to the detector means for each peak signal” Claim 13 contains similar language.

The Court agrees with Behringer that a plain reading of the claim language indicates that “switch means” is distinct from “detector means.” A finding to the contrary would mean that the “switch means” is responsive to itself. “A claim construction that renders asserted claims facially nonsensical ‘cannot be correct.’ ” Becton, 616 F.3d at 1255. Accordingly, the Court adopts the parties’ proposed construction of “switch means,” namely “any electronic component or circuit that can allow current to flow or not flow through the switch” and finds that such limitation additionally requires that each “switch means” is distinct from its corresponding “detector means.”

H. “Coupling Means”

Behringer urges the Court to construe “coupling means” which appears in Claims 11 and 13 as a means-plus-function limitation and, in particular to restrict “coupling means” in the claims at issue to the structural embodiments set forth in the specification. Behringer offers very little discussion of this term or legal analysis in support of its position. (Def. Br. at 21). Peavey offers no discussion of this term whatsoever. In light of the foregoing, the Court declines to construe this term at this time.

2. Agreed Construction

The parties agree on the construction of the following terms: (1) “diode means” in Claim 5, and (2) “amplifier means” in Claims 8, 11, 12 and 13. The Court has closely reviewed and now adopts the parties’ agreed-upon proposed construction of these terms as follows: “diode means” is “any electrical device through which current can generally pass freely in only one direction” and “amplifier means” is “any electronic component or circuit for amplifying an electric signal.”

CONCLUSION

For the aforementioned reasons, the Court construes the disputed terms of the '428 Patent as detailed above. With respect to those terms (or arguments) that the Court has chosen not to rule on at this time, the parties shall seek leave from Magistrate Judge Claire C. Cecchi prior to filing any future motions concerning such terms and/or arguments. An appropriate Order accompanies this Opinion.

DATE: November 5, 2010

/s/ Jose L. Linares

JOSE L. LINARES,
UNITED STATES DISTRICT JUDGE